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# *Pitcairnia mirandae* (Bromeliaceae)—A New Species from Chiapas, Mexico

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**ABSTRACT.** *Pitcairnia mirandae* Utley & Burt-Utley (Bromeliaceae) is described as new from the state of Chiapas in Mexico. This new species is compared with *P. breedlovei* Lyman B. Smith, which it most closely resembles.

The variety of habitats in Chiapas (Miranda, 1952; Breedlove, 1973) is reflected in the ecological diversity and distribution of the 14 species of *Pitcairnia* known from the state. The ecological preferences of the species range from the dry forests or dry microhabitats within mesic forests where the deciduous taxa, *P. heterophylla* (Lindley) Beer and *P. karwinskyana* Schultes f., are typically encountered to the decidedly mesic formations preferred by *P. recurvata* (Scheidweiler) K. Koch and *P. undulata* Scheidweiler. Moreover, about one-half of these species are endemic to Chiapas and adjacent portions of Mexico and Guatemala (Utley & Burt-Utley, 1994). *Pitcairnia mirandae*, which we are proposing as a new species, occurs in the "Bosque Tropical Caducifolio" of Chiapas and is most similar to the Chiapan endemic, *P. breedlovei* Lyman B. Smith (Smith, 1966; Utley & Burt-Utley, 1994), which is known from "Bosques de Coniferas y Quercus."

***Pitcairnia mirandae* Utley & Burt-Utley, sp. nov.**

**TYPE:** Mexico. Chiapas: Municipio de Villa Corzo, 39.2 mi. S of MEX 190 E of Tuxtla Gutierrez along road to Revolución Mexicana, steep forested slopes above stream with rock outcrops, 2000 ft., 27 July 1992, *Utley & Utley 8800* (holotype, MEXU; isotypes, CAS, MO, US). Figure 1.

Planta herbacea caule. Inflorescentia paniculata pauciramosa vel racemosa. Sepala adaxialia pariter carinata. Petala testacea 3.5–4.1 cm longa. Ovarium  $\frac{1}{2}$ – $\frac{2}{3}$  inferum.

Terrestrial herbs, acaulescent with a bulbous rosette when young becoming up to 4 dm caulescent with age; the stems typically covered by the densely imbricate leaf sheaths. Leaves entire, dimorphic, sheaths of both types clasping, broadly triangular, entire, 3–4 cm wide and 1.5–3.5 cm

long, dark castaneous abaxially, pale to light brown adaxially, adaxially glabrous, abaxially glabrous basally becoming densely pubescent distally. Blades of the outer (lower) leaves soft spinose to linear, acuminate to attenuate, 0.2–0.3 cm wide and 1.5–15 cm long, glabrous adaxially, densely cinerous pubescent abaxially. Blades of the inner (upper) leaves linear to narrowly oblanceolate, long acuminate to attenuate, narrowed and somewhat channeled basally but not petiolate, 1–1.7 cm wide and 45–85 cm long, glabrous adaxially, densely cinerous pubescent abaxially. Scape erect, 39–49(–92) cm long, scattered- to floccose-lanate, becoming locally glabrous with age. Scape bracts strongly clasping and imbricate proximally becoming clasping and lax distally, exposing much of the rachis, blades erect to divergent or occasionally spreading; lowermost bracts resembling the outer leaves, sheaths broadly triangular (ovate), 1.5–2.5 cm wide and 2.5–3.5 cm long, cinerously floccose-pubescent becoming glabrous with age, castaneous to stramineous; blades 1–2 mm wide, 2–11 cm long, linear; middle bracts lacking clear distinction between blade and sheath, 0.8–1.1 cm wide, 10–30 cm long, narrowly ovate basally becoming narrowly triangular and attenuate distally, fugaciously cinerous-pubescent abaxially, glabrous to scattered lepidote adaxially; upper bracts reduced but similar to the middle bracts (occasionally with distinct, narrowly triangular blades), 3–6 cm long, 0.6–1 cm wide. Primary bracts with ovate sheaths and narrowly triangular, attenuate blades, spreading to subreflexed, 2.7–4.2 cm long, 0.6–1.1 cm wide, densely cinerous becoming glabrous with age abaxially, scattered lepidote adaxially. Inflorescence an erect 2–3-branched panicle or simple and racemose, laxly many-flowered, rachis (of compound inflorescences) 20–76 cm long; branches spreading to ascending (or the single, erect raceme in simple inflorescences), (11–)20–50 cm long, sterile basal portion 3–10 cm long, (8–)15–30-flowered. Floral bracts triangular, attenuate, scattered to subdensely lepidote, spreading to re-

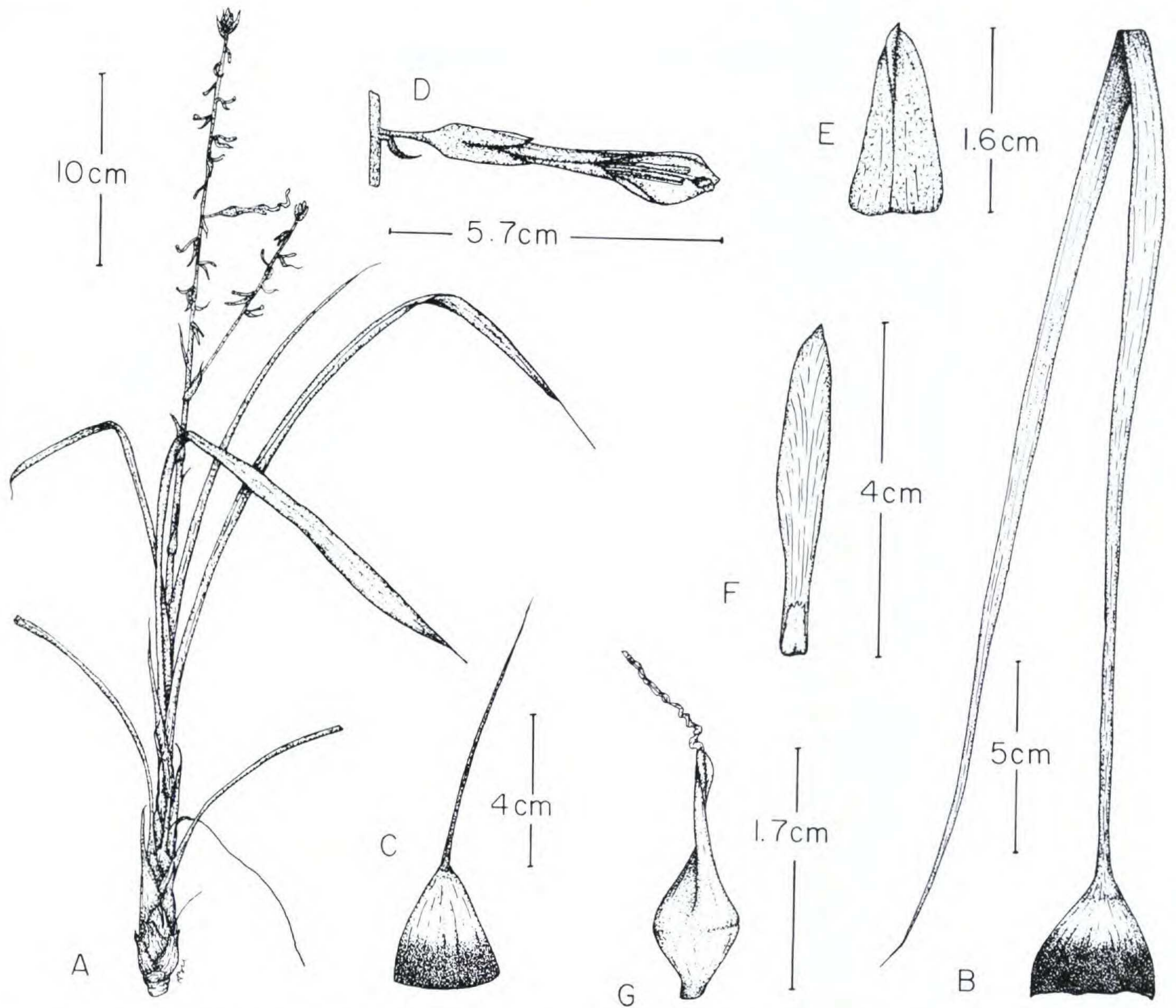


Figure 1. *Pitcairnia mirandae* Utley & Burt-Utley. —A. Habit. —B. Mature foliose leaf. —C. Mature spinose leaf. —D. Flower. —E. Adaxial sepal. —F. Petal. —G. Immature fruit (from Utley & Utley 8800).

Table 1. Comparison of the distinguishing characteristics of *Pitcairnia breedlovei* and *P. mirandae*.

<i>Pitcairnia breedlovei</i>	<i>Pitcairnia mirandae</i>
petals white to pale yellow	petals brick red
petals 4–4.5 cm long	petals 3.5–4.1 cm long
wings of adaxial sepals about 2 mm at widest point; conspicuously undulate-crisped	wings of adaxial sepals about 1 mm at widest point; even or appearing weakly irregular with 10× magnification
ovary at most one-half inferior	ovary one-half to two-thirds inferior

flexed, 1.3–2.7 cm long, 0.4–0.8 cm wide. Flowers spreading, pedicels 1–1.8 cm long, lepidote; sepals elliptic to broadly linear, acute and acuminate, 1.5–1.6 cm long, 0.4–0.5 cm wide, scattered cinerous lepidote, the adaxial pair keeled, becoming alate-keeled distally; corolla tubular, the petals torqued distally and forming an open hood over the anthers and stigma; petals narrowly obovate to subspathulate, broadly acute to subrounded, 3.5–4.1 cm long, about 0.8 cm wide, brick red, with a subbasal oblong, truncate to prelose, occasionally erose appendage (occasionally deeply incised apically giving the appearance of a pair of erose appendages); stamens included, filaments 2.7–3.4 cm long, anthers basifixed, 0.3–0.7 cm long, hastate; ovary trigonous, one-half to two-thirds inferior; style about 3 cm long; stigma conduplicate spiral. Immature fruit lepidote proximally, about 1 cm diam. Immature seeds bicaudate.

*Pitcairnia mirandae* resembles *P. breedlovei* in its elongate caudex covered with leaf bases, dimorphic entire leaves, few-branched paniculate or racemose inflorescence, and winged posterior sepals. However, the two taxa are readily distinguished by the characters summarized in Table 1.

This species is named in honor of Faustino Miranda, whose work in Chiapas has contributed immeasurably to our knowledge of this floristically rich and ecologically complex state.

*Paratypes.* MEXICO. **Chiapas:** Municipio de Villa Corzo, steep-walled canyon with Tropical Deciduous Forest and Conglomerate bluffs 58 km S of Mexican Highway 190 on road to Nueva Concordia, 900 m, 11 Sep. 1974, *Breedlove* 37555 (DS); about 39 mi. S of Mexican Highway 190 along road to Revolución Mexicana, steep-walled canyon along small stream, 1900–2000 ft., 31 July 1991, *Utley & Utley* 8725 (MICH, SEL, XAL).

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